

## **§ 45.151**

### **§ 45.151 Other openings.**

Each opening other than hatchways, machinery space openings, manholes, or flush scuttles—

(a) In freeboard decks, must be protected by an enclosed superstructure or by a deckhouse or companionway that is equal in strength and weathertightness to an enclosed superstructure; or

(b) In exposed superstructure decks or in the top of a deckhouse on freeboard decks that gives access to a space below the freeboard deck or a space within an enclosed superstructure, must be protected by a deckhouse or companionway.

### **§ 45.153 Through-hull piping: General.**

(a) All through-hull pipes required by this subpart must be made of steel or material equivalent to the hull in strength and fatigue resistance.

(b) All valves used as shell fittings and all shell fittings on which such valves are mounted must be made of steel, or bronze or other ductile material approved by the Commandant.

### **§ 45.155 Inlets and discharge piping: Valves.**

(a) Except as provided in paragraphs (d) and (e) of this section each pipe that discharges overboard through the hull of the ship must have—

(1) An automatic nonreturn valve with a positive means for closing; or

(2) Two automatic nonreturn valves with the inboard valve accessible for examination in service.

(b) The means for operating a valve described by paragraph (a)(1) of this section must be readily accessible and have indicators that show when the valve is not closed.

(c) If the pipe discharges from a space that is not manned or does not have continuous bilge water monitoring, a valve described in paragraph (a)(1) of this section must be operable above the freeboard deck.

(d) Each pipe that discharges from a space within an enclosed superstructure or deckhouse may have at least one accessible automatic nonreturn valve if the space is regularly visited by the crew.

(e) Through-hull piping systems in machinery spaces may have valves

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with positive means for closing at the shell if the controls are readily accessible and have indicators showing when the valves are not closed (nonreturn valves are not required).

### **§ 45.157 Scuppers and gravity drains.**

Scuppers and gravity deck drains from spaces above the freeboard deck that penetrate the shell below a line 24" or .05B above the summer loadline, whichever is greater, must have an automatic nonreturn valve. This valve may be omitted if the piping is of thickness not less than extra heavy pipe.

### **§ 45.159 Special conditions of assignment for type A vessels.**

The lower freeboards allowed for type A vessels allow water on deck for greater percentages of time. Therefore the following additional requirements must be met to qualify for type A freeboards:

(a) Machinery casings must be protected by an enclosed superstructure or deckhouse unless intact bulkheads are used on all sides on the freeboard deck.

(b) Exposed machinery casings may be fitted with weathertight doors providing they lead to a space or passageway as strong as an enclosed superstructure from which a second interior weathertight door is provided for access to the engine room.

(c) Hatchways on the exposed freeboard or forecastle decks must be provided with watertight covers of steel.

(d) Unless a separate fore and aft access is provided below the freeboard deck, a permanent fore and aft gangway must be fitted at the superstructure deck level between poop and all other deckhouses used in the essential operation of the vessel.

(e) Type "A" vessels must be fitted with open rails for at least half the length of the exposed parts of the weather deck. Where superstructures are connected by trunks, open rails must be fitted for the whole length of the exposed parts of the freeboard deck.